

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (previously presented) A probe molecule comprising single stranded nucleic acid; said probe comprising a single stranded sequence complementary to a target nucleic acid sequence; a single strand of an RNA polymerase promoter sequence, and a blocking moiety, there being from 0 to 50 nucleic acid bases between the blocking moiety and the promoter sequence.

2. (currently amended) [A] The probe according to claim 1, comprising the template strand of an RNA polymerase promoter.

3. (currently amended) [A] The probe according to claim 1, comprising a -5 sequence adjacent to the 3' end of the promoter sequence.

4. (currently amended) [A] The probe according to claim 1, comprising a +12 sequence adjacent to the 5' end of the promoter.

5. (currently amended) [A] The probe according to claim 1, such that when hybridised to the target, the 3' end of the target is extendible by a DNA polymerase.

6. (currently amended) [A] The probe according to claim 1, wherein the target complementary portion is located 3' of the promoter sequence.

7. (currently amended) [A] The probe according to claim 1, wherein a blocking moiety is located between position -19 and -68.

8. (currently amended) [A] The probe according to claim 1, wherein a blocking moiety is located between position -19 and -38.

9. (currently amended) [A] The probe according to claim 1, wherein a blocking moiety is located between position -22 and -35.

10. (currently amended) [A] The probe according to claim 1, wherein the blocking moiety comprises a C₂-C₂₀ alkyl, alkanol or alkylene residue.

11. (currently amended) [A] The probe according to claim 1, wherein the probe comprises a C₃-C₁₀ alkyl, alkanol or alkylene residue.

12. (currently amended) [A] The probe according to claim 1, comprising an octanediol, propanediol or hexaethylene glycol residue.

13. (currently amended) [A] The probe according to claim 1, comprising PNA and/or LNA.

14. (currently amended) [A] The probe according to claim 1, wherein a target complementary protein of the probe comprises PNA and/or LNA.

15. (previously presented) A method of detecting a nucleic acid sequence of interest in a sample, the method comprising the steps of: contacting a nucleic acid probe molecule in accordance with claim 1 with a nucleic acid target molecule, which target is the sequence of interest or is formed as a result of the presence in the sample of the sequence of interest; causing extension of the 3' end of the target using the probe as a template, thereby creating a functional double stranded RNA polymerase promoter; causing RNA synthesis from the RNA polymerase promoter, to create an RNA molecule; and detecting directly or indirectly the RNA molecule so produced.

16. (currently amended) [A] The method according to claim 15, wherein the RNA molecule is caused to hybridise to a further probe molecule and extended, creating a further RNA polymerase promoter which causes synthesis of a further RNA molecule, thereby amplifying the amount of RNA produced.

17. (currently amended) [A] The method according to claim 16, wherein the further RNA molecule is caused to hybridise to a second further probe molecule and is extended.

18. (currently amended) [A] The method according to claim 16, wherein the sequence of the further RNA molecule is substantially similar to that of the original target molecule, such that the further RNA molecule is able to hybridise, under the assay conditions employed, to the original nucleic acid probe molecule.

19. (currently amended) [A] The A method according to claim 16, wherein the target sequence comprises DNA or RNA.

20. (currently amended) [A] The method according to claim 16, wherein the target sequence is DNA or RNA formed as a result of the presence in the sample of the nucleic acid sequence of interest.

21. (currently amended) [A] The method according to claim 16, wherein the RNA molecule is detected directly or indirectly by means of a labelled binding partner.

22. (currently amended) [A] The method according to claim 21, wherein the labeled binding partner comprises an enzyme, a fluorophore, radiolabel or biochemical label.

23. (currently amended) [A] The method according to claim 21, wherein the labelled binding partner comprises DNA, RNA, LNA, PNA, or any combination thereof.

24. (previously presented) A kit for use in performing a method of detecting a nucleic acid sequence of interest, comprising a probe molecule in accordance with claim 1, and packaging means.

25. (currently amended) [A] The kit according to claim 24, further comprising one or more of the following: instructions for performing the method; a buffer; a DNA polymerase; an RNA polymerase; deoxyribonucleotide triphosphates; ribonucleotide triphosphates; and a labelled binding partner.

26. (previously presented) A method of detecting a nucleic acid sequence of interest in a sample, the method comprising the steps of: contacting a nucleic acid probe molecule in accordance with claim 1 with a further probe and with a nucleic acid target molecule, which target is the sequence of interest or is formed as a result of the presence in the sample of the sequence of interest; causing the further probe molecule and the target molecule to hybridise adjacent each other to the probe molecule, thereby creating a functional double stranded RNA polymerase promoter; causing RNA synthesis from the RNA polymerase promoter, to create a RNA molecule; and detecting directly or indirectly the RNA molecule so produced.